

47. This section provides information on the history of the flycatcher listing and CHD and describes the socioeconomic characteristics of proposed CHD areas.<sup>28</sup> The proposed CHD for the flycatcher traces the path of 1,556 stream miles winding through six states. The riparian areas along these streams cross through a variety of landscapes, including rural, urban, forest, and Tribal lands, that are subject to variegated economic activities. The proposed CHD, however, primarily bisects rural areas that experience lower per capita incomes and higher poverty rates than their respective states (see Exhibit 2-4). Exceptions are the few urban areas through which flycatcher habitat runs, Albuquerque and San Diego.
48. Because of the riparian nature of flycatcher habitat, water management issues (e.g., flood control and water supply) are expected to experience the greatest economic impact due to implementation of flycatcher conservation activities.

### **2.1 Background of Flycatcher Critical Habitat Designation**

49. In 1993 the Service published a proposal to list the flycatcher as endangered with critical habitat.<sup>29</sup> This listing was finalized on February 27, 1995; however, the Service deferred the final designation of critical habitat citing issues identified in public comments, new information, and a lack of economic information necessary to conduct an economic analysis.<sup>30</sup> On March 20, 1997, the U.S. District Court of Arizona, in response to a suit by the Southwest Center for Biological Diversity, ordered the Service to designate critical habitat for the flycatcher within 120 days. The first critical habitat designation for flycatcher was finalized on July 22, 1997.<sup>31</sup> This 1997 CHD included 599 river miles in AZ, CA, and NM. The Service published a correction notice on August 20, 1997 on the lateral extent of critical habitat.<sup>32</sup> On May 11, 2001, the 10<sup>th</sup> Circuit Court of Appeals, as a result of a suit from the New Mexico Cattle grower's Association initiated in March 1998, withdrew critical habitat, citing a faulty economic analysis. On September 30, 2003, in a complaint brought

<sup>28</sup> A detailed discussion of potentially affected Tribal economies is presented in Section 8.

<sup>29</sup> 58 FR 39495

<sup>30</sup> 60 FR 10694

<sup>31</sup> 62 FR 39129

<sup>32</sup> 62 FR 44228

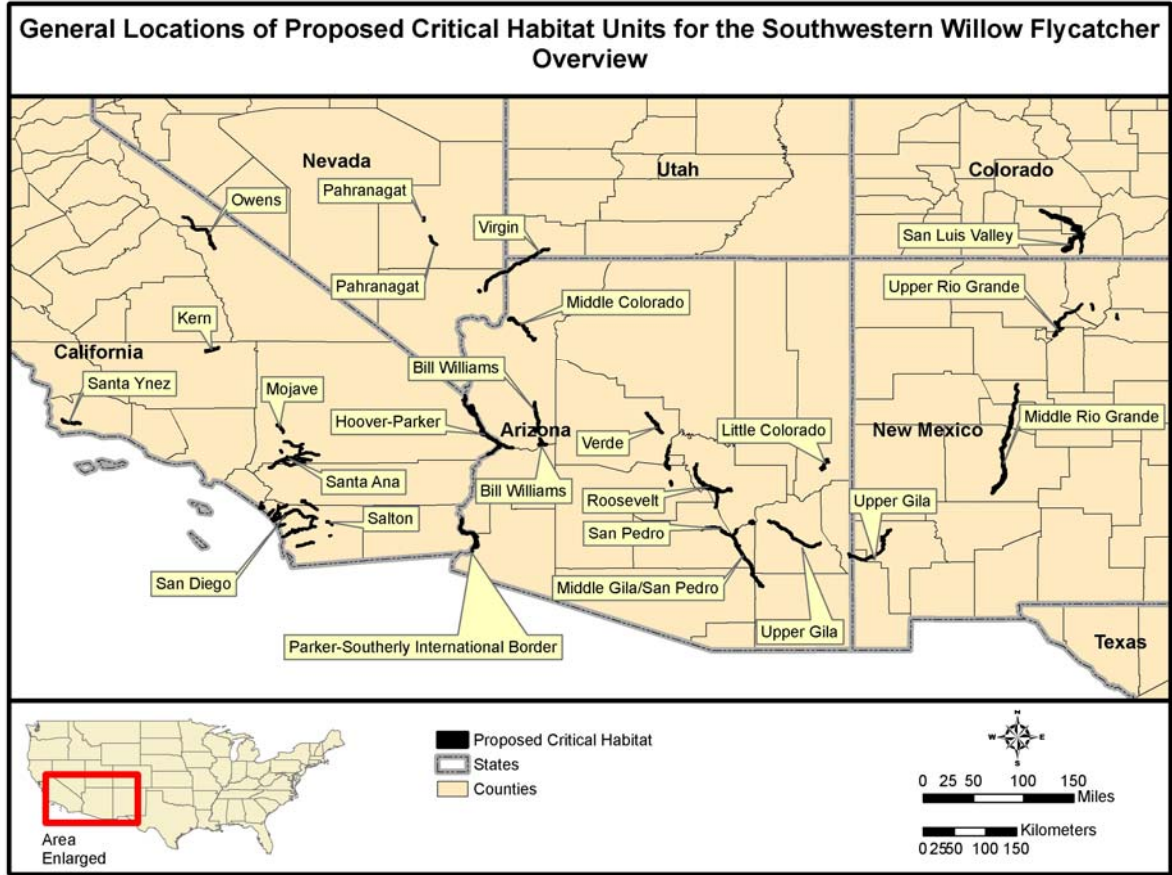
by the Center for Biological Diversity, the U.S. District Court of New Mexico instructed the Service to propose critical habitat by September 30, 2004, and publish a final rule by September 30, 2005.

50. The Recovery Plan for the flycatcher was completed in 2002 and provides the strategy for recovering the bird to threatened status and to the point where delisting is warranted.

## **2.2 Proposed Critical Habitat Designation**

51. The Service has re-proposed designation of approximately 376,000 acres encompassing 1,556 stream miles within 21 proposed critical habitat units, referred to as “Management Units.” These Management Units occur within five “Recovery Units.” The proposed CHD crosses six states: Arizona, California, Colorado, Nevada, New Mexico, and Utah as highlighted in Exhibit 2-2. The lateral extent of the proposed CHD was derived by one of two methods. The area was either captured from existing digital data sources (e.g., National Wetlands Inventory or Federal Emergency Management Agency 100-year flood data) or created through visual interpretation of remotely sensed data (e.g., U.S. Geological Survey Digital Orthophoto Quarter Quads or National Wetlands Inventory aerial photographs). Lateral extents of riparian areas were then refined by creating electronic maps to sub-categorize the lands as either “riparian vegetated” or “riparian developed.” The “riparian developed” areas included all types of development (e.g., urban, suburban, agriculture, utilities, mining, etc.) and are not included in the proposed CHD as they do not contain the necessary primary constituent elements essential to the conservation of the flycatcher.

**Exhibit 2-1: MAP OF PROPOSED CHD FOR THE FLYCATCHER**



52. Of the 376,000 acres comprising the proposed designation, approximately 41 percent are privately owned and another 34 percent are Federal lands. Of the remaining, six percent are State lands, six percent are Tribal lands and 12 percent are under other ownership. Exhibit 2-2 presents land ownership within the proposed CHD.

Exhibit 2-2					
SUMMARY OF ESTIMATED LAND OWNERSHIP IN FLYCATCHER CRITICAL HABITAT (Acres)					
State	Land Ownership				
	Federal	State	Private	Tribal	Other
Arizona	82,080	10,640	50,410	14,535	0
California	15,643	11,759	0	2,233	41,637
Colorado	7,969	1,425	59,036	0	0
New Mexico	17,676	246	39,439	6,443	0
Nevada	5,680	160	4,090	0	2,018
Utah	482	25	2,469	0	0
<b>TOTAL</b>	<b>129,530</b>	<b>24,255</b>	<b>155,444</b>	<b>23,211</b>	<b>43,655</b>
Source: <i>Proposed Determination of Critical Habitat for the Southwestern Willow Flycatcher</i> , October 12, 2004 (50 CFR Part 17).					

53. Certain types of activities occurring within the proposed CHD are likely to be impacted by efforts to protect the flycatcher. Exhibit 2-3 identifies potentially affected activities by Federal land management agency. These activities are discussed in detail in the following sections.

<b>Exhibit 2-3</b>	
<b>ACTIVITIES OCCURING WITHIN PROPOSED CRITICAL HABITAT FOR THE FLYCATCHER</b>	
<b>Federal Agency/ Affected Party</b>	<b>Potentially Affected Activities</b>
Army Corps of Engineers/Bureau of Reclamation	Water management, dam operations
Bureau of Indian Affairs/Tribes	Agriculture, development, fire management, recreation, cultural activities
Bureau of Land Management	Livestock grazing, recreation activities, road construction, land sales, fire management
Department of Defense	Troop training, fire management, munitions exercises, restoration projects, vegetation management
Federal Highway Administration	Transportation projects, bridge construction and maintenance
National Park Service	Fire management, recreation activities, trail and site maintenance, construction activities
U.S. Fish and Wildlife Service	Refuge operations, recreation, restoration projects, vegetation management
U.S. Forest Service	Livestock grazing, fire management, recreation activities, construction and maintenance, restoration projects, vegetation management
Private	Agriculture, livestock grazing, development, habitat restoration projects, recreation
Sources: Review of consultation history and personal communication with stakeholder groups and agencies.	

### 2.3 **Description of Species and Habitat**<sup>33</sup>

54. The southwestern willow flycatcher (*Empidonax traillii extimus*) (flycatcher) is a small neotropical migratory bird, and is one of four subspecies of the willow flycatcher currently recognized. The flycatcher is approximately 5.75 inches in length and weighs less than ½ ounce. It has a grayish-green back and wings, whitish throat, light grey–olive breast, and pale yellowish belly.
55. The historical breeding range of the flycatcher includes southern CA, southern NV, southern UT, AZ, NM, western Texas, southwestern CO, and extreme northwestern Mexico. At the end of 2002, 1,153 flycatcher territories were detected throughout southern CA, southern NV, southern UT, southern CO, AZ, and NM.
56. The flycatcher currently breeds in relatively dense riparian habitats in all or parts of six southwestern states (Arizona, California, Colorado, Nevada, New Mexico, Utah), from

<sup>33</sup> The information on the flycatcher and its habitat included in this section was obtained from the *Proposed Determination of Critical Habitat for the Southwestern Willow Flycatcher*, October 12, 2004 (50 CFR Part 17), and the *Recovery Plan for the Southwestern Willow Flycatcher*, U.S. Fish and Wildlife Service, August 2002.

near sea level to over 6,000 feet above. It breeds in riparian habitats along rivers, streams, or other wetlands, where relatively dense growths of trees and shrubs are established, near or adjacent to surface water or underlain by saturated soil. The specific biological and physical features, referred to as the primary constituent elements are described in the Proposed Rule.

57. The primary cause of the flycatcher's decline is loss and modification of habitat resulting from water management and land use practices. The Recovery Plan identifies seven mechanisms resulting in loss and modification of habitat, including: dam operations, water diversion and groundwater pumping, river channelization and bank stabilization, control of phreatophytes (plants whose roots are associated with the water table), livestock grazing, recreation, fire, agricultural development, urbanization, changes in the riparian plant communities, cowbird brood parasitism, and demographic effects from small population size.

## **2.4 Socioeconomic Profile of the Critical Habitat Area**

58. This section summarizes key economic and demographic information for the counties containing proposed CHD for the flycatcher, including population characteristics and general economic activity. County level data are presented to provide context for the discussion of potential economic impacts, and to illuminate trends that may influence these impacts. Although County level data may not precisely reflect the socioeconomic characteristics of the areas immediately surrounding the proposed CHD for the flycatcher, these data provide context for the broader analysis.

### **2.4.1 Population Characteristics**

59. The proposed CHD spans an array of urban and rural areas within Arizona, California, Colorado, Nevada, New Mexico, and Utah. Exhibit 2-4 presents the population size, change in population from 1990 to 2000, per capita income, and poverty rates for the 37 counties that have CHD within their boundaries, and for each of the six states as a whole.
60. In Arizona, all counties containing CHD, with the exception of Maricopa, have a lower per capita income than Arizona's average of approximately \$20,000. Eight out of the twelve counties have higher poverty rates than the State average of 14 percent. Within Apache County, almost 38 percent of all residents live below the poverty threshold. The counties containing CHD in Arizona account for over 95 percent of the State population.
61. California has nine counties containing CHD. These counties jointly comprise approximately 30 percent of the State population. Imperial County's per capita income, approximately \$13,000, is 58 percent of California's State average and the lowest of the nine counties in the proposed CHD in California.
62. Counties containing CHD in Colorado each represent less than one percent of total State population. All four of the counties are characterized by higher poverty rates than the

State average of approximately nine percent. Costilla County's poverty rate of 27 percent is almost triple the State average. The per capita income for each of the four counties is below Colorado's average of approximately \$24,000.

63. In Nevada, the two counties containing CHD collectively account for 70 percent of Nevada's entire population. Of the two, Clark County alone comprises approximately 68.8 percent of this total; the City of Las Vegas is in this County. Both Clark and Lincoln County experience higher poverty rates than the State average of 10.5 percent.
64. Within New Mexico, the nine counties containing CHD collectively represent approximately 49 percent of the State's population. Bernalillo County, which includes the City of Albuquerque, accounts for nearly 31 percent of the total State population. Seven of the nine counties have a per capita income lower than the State average.
65. In Utah, the sole County containing CHD is Washington County. This County has a per capita income of approximately \$16,000, which is less than Utah's average of \$18,000. Washington County represents four percent of Utah's total population.
66. Of the 37 counties, 30 have a lower per capita income and 27 have fewer persons per square mile than their respective statewide averages. Although these measures vary considerably across states, the data suggest that overall the counties are less densely populated, and have a lower than average income per capita, than their respective states.

**Exhibit 2-4**

**SOCIOECONOMIC PROFILE OF COUNTIES CONTAINING CRITICAL HABITAT FOR THE  
SOUTHWESTERN WILLOW FLYCATCHER**

<b>State</b>	<b>County</b>	<b>Population Density (persons/ sq mi)</b>	<b>Population (2000)</b>	<b>% of Statewide Population</b>	<b>% Change (1990-2000)</b>	<b>Per Capita Income (1999)</b>	<b>Poverty Rate (1999)</b>
<b>Arizona</b>	<b>State Total</b>	<b>45.2</b>	<b>5,130,632</b>	<b>100%</b>	<b>40%</b>	<b>\$20,275</b>	<b>13.9%</b>
	Apache	6.2	69,423	1.4%	12.7%	\$8,986	37.8%
	Cochise	18.9	117,755	2.3%	20.6%	\$15,988	17.7%
	Gila	10.7	51,335	1.0%	27.6%	\$16,315	17.4%
	Graham	7.2	33,489	0.7%	26.1%	\$12,139	23.0%
	Greenlee	4.6	8,547	0.2%	6.7%	\$15,814	9.9%
	La Paz	4.4	19,715	0.4%	42.4%	\$14,916	19.6%
	Maricopa	333.0	3,072,149	59.9%	44.8%	\$22,251	11.7%
	Mohave	11.5	155,032	3.0%	65.8%	\$16,788	13.9%
	Pima	91.9	843,746	16.4%	26.5%	\$19,785	14.7%
	Pinal	33.4	179,727	3.5%	54.5%	\$16,025	16.9%
	Yavapai	20.6	167,517	3.3%	55.5%	\$19,727	11.9%
	Yuma	29.0	160,026	3.1%	49.7%	\$14,802	19.2%
<b>California</b>	<b>State Total</b>	<b>217.2</b>	<b>33,871,648</b>	<b>100%</b>	<b>13.60%</b>	<b>\$22,711</b>	<b>14.2%</b>
	Imperial	31.8	142,361	0.4%	30.20%	\$13,239	22.6%
	Inyo	1.8	17,945	0.1%	-1.80%	\$19,639	12.6%
	Kern	81.1	661,645	2.0%	21.40%	\$15,760	20.8%
	Mono	4.1	12,853	0.0%	29.10%	\$23,422	11.5%
	Orange	3,561.6	2,846,289	8.4%	18.10%	\$25,826	10.3%
	Riverside	211.6	1,545,387	4.6%	32%	\$18,689	14.2%
	San Bernardino	85.0	1,709,434	5.0%	20.50%	\$16,856	15.8%
	San Diego	663.9	2,813,833	8.3%	12.60%	\$22,926	12.4%
	Santa Barbara	145.3	399,347	1.2%	8%	\$23,059	14.3%
<b>Colorado</b>	<b>State Total</b>	<b>41.5</b>	<b>4,301,261</b>	<b>100%</b>	<b>30.6%</b>	<b>\$24,049</b>	<b>9.3%</b>
	Alamosa	20.7	14,966	0.3%	9.9%	\$15,037	21.3%
	Conejos	6.5	8,400	0.2%	12.7%	\$12,050	23.0%
	Costilla	3.0	3,663	0.1%	14.8%	\$10,748	26.8%
	Rio Grande	13.6	12,413	0.3%	15.3%	\$15,650	14.5%
<b>Nevada</b>	<b>State Total</b>	<b>18.2</b>	<b>1,998,257</b>	<b>100%</b>	<b>66.3%</b>	<b>\$21,989</b>	<b>10.5%</b>
	Clark	170.0	1,375,765	68.8%	85.6%	\$21,785	10.8%
	Lincoln	0.4	4,165	0.2%	10.3%	\$17,326	16.5%
<b>New Mexico</b>	<b>State Total</b>	<b>15.0</b>	<b>1,819,046</b>	<b>100%</b>	<b>20.1%</b>	<b>\$17,261</b>	<b>18.4%</b>
	Bernalillo	476.4	556,678	30.6%	15.8%	\$20,790	13.7%
	Grant	7.8	31,002	1.7%	12%	\$14,597	18.7%
	Hidalgo	1.7	5,932	0.3%	-0.4%	\$12,431	27.3%
	Mora	2.7	5,180	0.3%	21.5%	\$12,340	25.4%
	Rio Arriba	7.0	41,190	2.3%	19.9%	\$14,263	20.3%
	Santa Fe	67.7	129,292	7.1%	30.7%	\$23,594	12.0%
	Socorro	2.7	18,078	1.0%	22.4%	\$12,826	31.7%
	Taos	13.6	29,979	1.6%	29.7%	\$16,103	20.9%
	Valencia	61.9	66,152	3.6%	46.2%	\$14,747	16.8%
<b>Utah</b>	<b>State Total</b>	<b>27.2</b>	<b>2,233,169</b>	<b>100%</b>	<b>29.6%</b>	<b>\$18,185</b>	<b>9.4%</b>
	Washington	37.2	90,354	4.0%	86.1%	\$15,873	11.2%

Source: U.S. Census Bureau, Census 2000 and State County QuickFacts, accessed at <http://quickfacts.census.gov/qfd>.

## 2.4.2 Economic Activity

67. The respective contributions of the various economic activities in counties within the proposed CHD provide insight into the activities most likely to experience potential impacts. Exhibit 2-5 highlights the annual payroll for various industries in the 37 counties containing proposed CHD for the flycatcher. The principal industries, in terms of annual payroll, include services, retail trade, manufacturing and construction.<sup>34</sup>

<b>Exhibit 2-5</b>						
<b>ECONOMIC ACTIVITY WITHIN COUNTIES CONTAINING WILLOW CRITICAL HABITAT ANNUAL PAYROLL BY INDUSTRY (2001)</b>						
<b>Industry</b>	<b>Annual Payroll (Thousands)</b>					
	<b>Arizona</b>	<b>California<sup>b</sup></b>	<b>Colorado</b>	<b>Nevada</b>	<b>New Mexico<sup>b</sup></b>	<b>Utah</b>
Agriculture, Forestry, Hunting, and Fishing	\$ 33,244	\$ 215,138	\$ 4,036	\$ 2,695	\$ 260	\$ -
Mining	\$ 212,428	\$ 763,011	\$ 4,539	\$ 15,528	\$ 14,663	\$ -
Utilities	\$ 602,612	\$ 1,465,194	\$ -	\$ 234,067	\$ 36,800	\$ 1,832
Construction	\$ 5,391,201	\$ 16,219,720	\$ 16,347	\$ 2,250,490	\$ 1,039,547	\$ 79,650
Manufacturing	\$ 7,725,634	\$ 42,605,422	\$ 6,831	\$ 673,415	\$ 1,040,758	\$ 64,640
Wholesale Trade	\$ 3,718,145	\$ 23,675,813	\$ 18,037	\$ 794,399	\$ 583,785	\$ 16,864
Retail Trade	\$ 5,823,809	\$ 21,521,277	\$ 38,740	\$ 1,836,405	\$ 1,266,302	\$ 115,564
Transportation and Warehousing	\$ 2,344,522	\$ 9,000,320	\$ 3,008	\$ 563,833	\$ 226,188	\$ 42,066
Information <sup>a</sup>	\$ 2,450,126	\$ 18,429,681	\$ 4,414	\$ 637,753	\$ 403,519	\$ 16,212
Finance and Insurance	\$ 4,804,284	\$ 22,780,666	\$ 11,488	\$ 949,385	\$ 660,391	\$ 22,340
Real Estate	\$ 1,216,551	\$ 6,500,708	\$ 2,717	\$ 479,722	\$ 166,404	\$ 6,336
Auxiliaries	\$ 635,262	\$ 2,477,297	\$ -	\$ 113,952	\$ 15,776	\$ -
Unclassified <sup>c</sup>	\$ 26,137	\$ 185,270	\$ 63	\$ 16,629	\$ 1,724	\$ 445
Services and Other Industries	\$ 23,325,127	\$ 115,082,213	\$ 81,853	\$ 10,963,666	\$ 4,444,270	\$ 249,451
Source: U.S. Census Bureau, <i>2001 County Business Patterns</i> , accessed at <a href="http://censtats.census.gov/cbpnaic/cbpnaic.shtml">http://censtats.census.gov/cbpnaic/cbpnaic.shtml</a> .						
<sup>a</sup> Information sector includes media services, such as newspaper and book publishers, cable networks, and telecommunication services.						
<sup>b</sup> This exhibit incorporates industry information on two counties in California (Los Angeles County and Ventura County) and two counties in New Mexico (Catron and Sandoval) that have since been removed from the proposed CHD for the flycatcher. As a result the total industry payrolls for these two states may be overestimated.						
<sup>c</sup> Establishments unclassified by NAICs code.						

<sup>34</sup> Services sectors include professional, scientific & technical services; management of companies & enterprises; admin, support, waste management, remediation services; educational services; health care and social assistance; arts, entertainment & recreation; accommodation & food services; and other services (excluding public administration).



68. Exhibit 2-6 provides industry and employment data for all counties that contain proposed CHD for the flycatcher. The “Number of Establishments” column displays the total number of physical locations at which business activities were conducted with one or more paid employee in the year 2001. Over 640,000 business establishments operate and employ over 10 million individuals in the counties containing proposed CHD for the flycatcher. These figures provide a measure of the average density of commercial and industrial establishments in the region.
69. The largest employment sectors within the counties containing CHD are services, retail trade, and manufacturing. Employment within the services sector represented approximately 52 percent of the job base while employment within the retail trade constituted 10.4 percent of all jobs in the counties. Manufacturing employment accounted for nearly 11.5 percent of all jobs. While riparian habitat constitutes a small portion of the land area in these counties, the overall demographic information allows for a better understanding of the economies potentially affected by CHD.

**Exhibit 2-6**

**ECONOMIC ACTIVITY WITHIN COUNTIES CONTAINING WILLOW CRITICAL HABITAT  
NUMBER OF ESTABLISHMENTS AND EMPLOYEES BY INDUSTRY (2001)**

Industry	Arizona		California*		Colorado		Nevada		New Mexico*		Utah	
	Employees	Establishments	Employees	Establishments	Employees	Establishments	Employees	Establishments	Employees	Establishments	Employees	Establishments
Agriculture, Forestry, Hunting, and Fishing	2,093	213	8,393	612	333	17	118	18	118	31	19	1
Mining	10,548	177	14,126	544	224	10	423	43	1734	57	19	1
Utilities	9,607	226	17,118	537	198	9	3,592	51	2823	72	38	8
Construction	164,003	11,801	358,680	28,773	720	107	60,448	2,696	23,802	2,904	3,210	512
Manufacturing	191,309	4,744	998,469	28,956	318	37	19,004	904	19,775	1,059	2,398	106
Wholesale Trade	84,629	6,247	463,560	34,817	854	63	19,088	1,510	12,932	1,317	582	100
Retail Trade	252,250	16,039	741,079	53,954	2,071	206	77,003	4,614	38413	4,027	5,870	457
Transportation & Warehousing	70,982	2,339	237,006	9,006	160	34	23,149	581	6310	495	1,288	66
Information	57,294	2,088	274,413	11,785	191	24	15,203	572	8818	529	597	47
Finance and Insurance	111,341	7,441	328,875	20,849	541	58	24,147	2,507	14876	1,546	776	151
Real Estate	40,562	5,946	152,950	19,652	186	50	15,998	1,850	4798	1,215	335	129
Auxiliaries	17,059	244	41,027	866	19	1	3,519	51	1453	128	999	5
Unclassified	2,146	1,248	7,052	4,628	64	8	611	397	354	223	54	30
Other Industries and Services	852,858	51,193	4,196,652	259,550	3,235	473	388,521	14,660	214,768	11,751	11,853	1,020

Source: U.S. Census Bureau, 2001 County Business Patterns, accessed at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>

\*This exhibit incorporates industry information on two Counties in California (Los Angeles County and Ventura County) and two counties in New Mexico (Catron and Sandoval) that have since been removed from the proposed CHD for the flycatcher. As a result the total industry payrolls for these two states may be overestimated.